

Article

Research and developments in the transformation of UK consumer price statistics: June 2022

Research to modernise the measurement of consumer price inflation in the UK: fourth in a series of biannual articles to update users.

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1 . Other pages in this release

- [Using Auto Trader car listings data to transform consumer price statistics, UK](#)
- [Using transaction-level rail fares data to transform consumer price statistics, UK](#)

2 . Overview

- This is the fourth in a [series of biannual articles](#) that aims to update users on our research to modernise the measurement of consumer price inflation in the UK, while maintaining the quality and integrity of our outputs.
- Our research programme involves the investigation of both new data sources and new methods; we plan to include data from alternative sources in our headline consumer price statistics from 2023, following a continued period of engagement with users.
- We will begin the incorporation of new data and methods into our headline measures of consumer price statistics for certain targeted categories; we plan to first introduce new data for second-hand cars and rail fares in 2023, and for groceries in 2024.
- The other pages in this release relate to our progress in developing methods and producing indices for the rail fares and second-hand cars categories specifically.

3 . Updates on our transformation work

New data sources

In this progress report, we look at how we are [Using Auto Trader car listings data to transform our consumer price statistics](#) and how we are [Using transaction-level rail fares data to transform consumer price statistics](#). These data provide us with more detailed information that allows us to produce improved and informative statistics regarding the key drivers of inflation for these transport components.

We plan to include these new data and methods in 2023 as part of our broader programme of work to transform UK consumer price statistics. Users can read about our plans and our timeline for implementation in our [Transformation of UK consumer price statistics: April 2022 article](#).

New methods

As well as the methods outlined specifically for rail fares and second-hand cars in the other pages in this release, we worked with external researchers as part of an Economic Statistics Centre of Excellence (ESCoE)-commissioned project. The project aimed to further investigate the [Multilateral index number methods for consumer price statistics](#) discussed in this 2022 article by Fox, Levell and O'Connell. This followed our previous work in 2020 to develop a quality framework to assess [New index number methods in consumer price statistics](#). In their report, Fox, Levell and O'Connell, recommend the use of a GEKS-Törnqvist price index, with a 25-month window and a mean splice extension method. Further information on this method can be found in the aforementioned linked reports.

We have considered these recommendations and discussed them along with our own findings, both with our [Technical Advisory Panel on Consumer Prices \(APCP-T\)](#) and internationally (as explored in [What do missing prices mean for the choice of index number method with alternative data? \(PDF, 1.3kb\)](#)) and have agreed that this method will be appropriate for use with our new data sources. We will make a single adjustment to use a mean splice on published series extension method rather than a traditional mean splice for pragmatic reasons. Fox, Levell and O'Connell note, in their 2022 article, that the mean splice published, and the traditional mean splice give "almost exactly the same results". We will be providing users with an accessible guide for the theory and calculation of these methods in due course.

4 . Future developments

The research presented in these articles should not be considered as final but should begin to demonstrate how some traditional methods will need to be transformed to process the magnitude of information that is becoming available to us. All results and statistics within this article should therefore be treated as experimental. A full research programme is outlined in our [Consumer prices development work plan](#).

During this period of research, we will continue to work with our [Advisory Panels for Consumer Price Statistics](#) and broader users. We welcome feedback on any of the research completed to date to cpi@ons.gov.uk, which may help shape the ongoing transformation of consumer price statistics to include new data and methods.

5 . Related links

[Transformation of consumer price statistics: April 2022](#)

Article | Released 27 April 2022

Our plans to transform UK consumer price statistics by including new improved data sources and developing our methods and systems for production from 2023.

[Consumer price inflation, UK](#)

Bulletin | Released monthly

Price indices, percentage changes, and weights for the different measures of consumer price inflation.

[Consumer Prices Indices Technical Manual, 2019](#)

Methodology | Released 18 September 2019

This technical manual is a reference tool for anyone wanting to understand how measures of consumer price inflation and associated indices are compiled.